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## WEBSTER COUNTY

### (Webster County Water Service Area Map)

- Estimated 1999 population of 13,300--85% on public water
- Estimated 2020 population of 12,600--89% on public water
- 300 miles of water lines, with plans for 70 additional miles
- Estimated funding needs for public water 2000-2005: \$4,584,000
- Estimated funding needs for public water 2006-2020: \$0

Webster County had an estimated population of 13,278 (5,450 households) in 1999 with a projected population of 12,600 (5,500 households) in 2020. Public water is provided to 4,650 households, or about 85 percent of the county's residents. In areas of the county not served by public water, about 3/4 of the households rely on private domestic wells and 1/4 of the households rely on other sources. About 230 customers will be added to public water service through new line extensions in 2000-2020.

### *Estimated Costs - Proposed Projects, 2000-2005*

COUNTY/System		New Customers		Rehab	Source	Treatment	Tanks/ Pumps	Total
	Miles	Number	Cost in \$1000	In \$1000	in \$1000	in \$1000	in \$1000	in \$1000
WEBSTER								-
Webster County Water District	67	225	3,424				624	4,048
Sebree	1	2	12	5				17
Clay			10	509				519
Dixon								-
Providence								-
TOTAL	68	227	3,446	514			624	4,584

## PUBLIC WATER SYSTEMS

The residents of Webster County are presently provided water by 7 public and semi-public water systems: 6 community systems--5 municipal, Clay Water Works, Dixon Water Department, Providence Water Works, Sebree Water Department, Slaughters Water Works, and 1 water district, Webster County Water District; and 1 non-community system.

### **CLAY WATER WORKS**

PWSID: ..... 1170073  
System Type: ..... COMMUNITY  
Owner Type: ..... MUNICIPAL  
Surface Source:

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# WATER SERVICE AREAS

## WEBSTER COUNTY

### Kentucky

*Prepared By:*  
**Water Resource Development Commission**

Department for Local Government  
1024 Capital Center Drive, Suite 340  
Frankfort, Kentucky 40601-8204  
502-573-2382 -- 502-573-2939 fax  
<http://dlgnt1.state.ky.us/wrdc/>

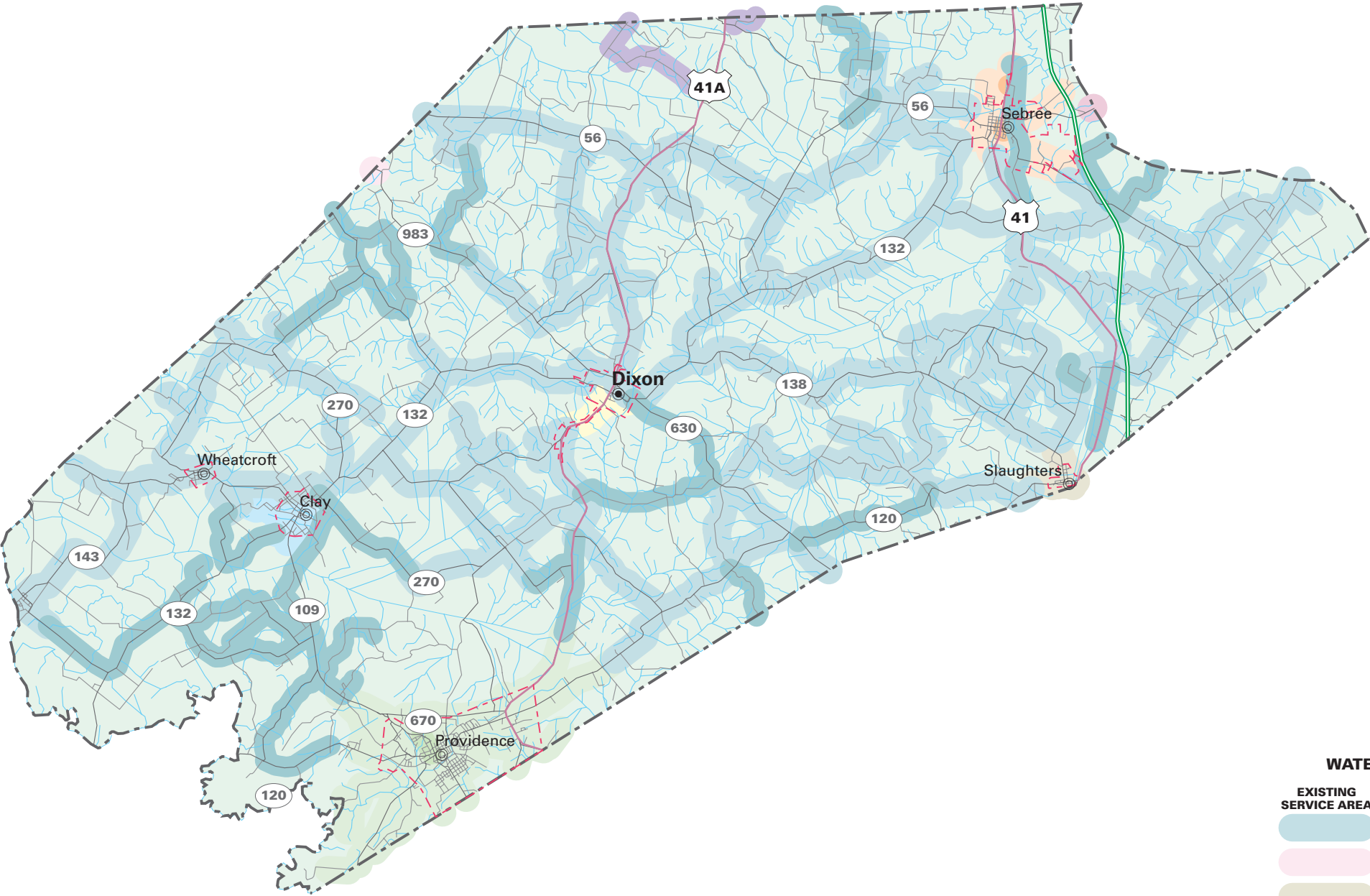
Bob Arnold, Chairman  
Lawrence Wetherby, Executive Director

Final GIS & Cartographic Operations By:  
Kent Anness & Kim Prough

Data Collection & GIS Input By:  
Kentucky Area Development Districts



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**WATER SERVICE STATUS BY OWNER**

EXISTING SERVICE AREA	PROPOSED SERVICE AREA	
		WEBSTER COUNTY WATER DISTRICT
		UNION COUNTY WATER DISTRICT
		SLAUGHTERS WATER WORKS
		SEBREE WATER DEPARTMENT
		PROVIDENCE WATER WORKS
		HENDERSON COUNTY WATER DISTRICT
		DIXON WATER DEPARTMENT
		CLAY WATER WORKS
		BEECH GROVE WATER BOARD

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Purchase Source:  
Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD):..... 0.00  
Percent Daily Average Production: ..... 0.00  
Total Tank Storage Capacity (gallons):..... 500,000.00  
Total Service Connections: ..... 650.00  
Number of Employees:..... 5.00  
Treatment Operator Class:.....2D  
Distribution Operator Class:  
Customer Rate for 1,000 Gallons:..... Not available  
O/M costs 1997:..... Not available  
O/M costs per Service Connection: ..... Not available  
Net Revenue 1997: ..... Not available  
Total Water Produced 1997 (gallons):..... Not available  
Water Sold 1997 (gallons):..... Not available  
Unaccounted-for Water 1997 (%): ..... Not available

The Clay Water Works purchases treated water from the Webster County Water District (WCWD). Clay Water Works currently services approximately 617 residences in the city of Clay. The system purchases 120,000-gallons per day from WCWD. Clay maintains one 500,000-gallon tank. And a treatment plant with a design capacity of 162,800 gallons and a storage capacity of 60,000-gallons. On an average day the system produces approximately 120,000-gallons per day.

The Clay Water Works has multiple projects that it would like to undertake. The water district would like to upgrade some existing lines within the system. The district would also like to extend of lines to increase water pressure within certain areas. To meet current as well as future needs of the county, projects have been ranked by Clay Water Works system representatives, elected officials, and the Green River Area Development District Water Supply Planning Council as being crucial to the future growth and development of the region.

#### **DIXON WATER DEPARTMENT**

PWSID: ..... 1170104  
System Type:..... COMMUNITY  
Owner Type: ..... MUNICIPAL  
Surface Source:..... LAKE  
Purchase Source:  
Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD):..... 0.00  
Percent Daily Average Production: ..... 0.00

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Total Tank Storage Capacity (gallons):.....	0.00
Total Service Connections: .....	390.00
Number of Employees:.....	2.00
Treatment Operator Class:.....	1D
Distribution Operator Class:	
Customer Rate for 1,000 Gallons:.....	Not available
O/M costs 1997:.....	Not available
O/M costs per Service Connection: .....	Not available
Net Revenue 1997: .....	Not available
Total Water Produced 1997 (gallons):.....	Not available
Water Sold 1997 (gallons):.....	Not available
Unaccounted-for Water 1997 (%): .....	Not available

The Dixon Water Department purchases treated water from the Webster County Water District (WCWD). The district currently services approximately 366 residences in the city of Dixon. The system purchases 70,000-gallons per day from WCWD.

The Dixon Water Works would like to upgrade existing 2-inch mains to 6-inch mains. The district would also like to extend a 4-inch line southwest out Hwy 41. To meet current as well as future needs of the county, projects have been ranked by Dixon Water Department system representatives, elected officials, and the Green River Area Development District Water Supply Planning Council as being crucial to the future growth and development of the region.

#### **PROVIDENCE WATER WORKS**

PWSID:.....	1170361
System Type:.....	COMMUNITY
Owner Type:.....	MUNICIPAL
Surface Source:.....	TRADEWATER RIVER
Purchase Source:	
Well Source:	
Sells Water to:	
Treatment Plant Capacity (MGD):.....	1.50
Percent Daily Average Production: .....	49.00
Total Tank Storage Capacity (gallons):.....	500,000.00
Total Service Connections: .....	1,750.00
Number of Employees:.....	5.00
Treatment Operator Class:.....	2D
Distribution Operator Class: .....	3A
Customer Rate for 1,000 Gallons:.....	Not available
O/M costs 1997:.....	Not available
O/M costs per Service Connection: .....	Not available
Net Revenue 1997: .....	Not available
Total Water Produced 1997 (gallons):.....	Not available
Water Sold 1997 (gallons):.....	Not available
Unaccounted-for Water 1997 (%): .....	Not available

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The Providence Water Works currently draws water from New City Lake, Old City Lake, and the Tradewater River. The system currently services the residents in the city of Providence and the community of Diamond. Providence Water Works operates a treatment plant with a design capacity of 1,500,000 gallons per day. The district maintains two storage tanks with a combined storage capacity of 500,000 gallons. On an average day the system produces approximately 750,000 gallons per day to serve 1,750 customers. The water district has 2 certified employees for operation and distribution. The other employees provide billing and financial oversight.

The Providence Water Works would like to build a new 1.5-million gallon per day water treatment plant. The water district would also like to upgrade existing lines within the system, which have low pressure and a history of leakage problems. To meet current as well as future needs of the county, projects have been ranked by Providence Water Works system representatives, elected officials, and the Green River Area Development District Water Supply Planning Council as being crucial to the future growth and development of the region

#### **SLAUGHTERS WATER WORKS**

PWSID: ..... 1170400  
System Type: ..... COMMUNITY  
Owner Type: ..... MUNICIPAL  
Surface Source:  
Purchase Source:  
Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD): ..... 0.00  
Percent Daily Average Production: ..... 0.00  
Total Tank Storage Capacity (gallons): ..... 500,000.00  
Total Service Connections: ..... 254.00  
Number of Employees: ..... 1.00  
Treatment Operator Class: ..... 1D  
Distribution Operator Class:  
Customer Rate for 1,000 Gallons: ..... 8.25  
O/M costs 1997: ..... Not available  
O/M costs per Service Connection: ..... Not available  
Net Revenue 1997: ..... Not available  
Total Water Produced 1997 (gallons): ..... Not available  
Water Sold 1997 (gallons): ..... Not available  
Unaccounted-for Water 1997 (%): ..... Not available

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The Slaughters Water Department purchases treated water from the Webster County Water District (WCWD). The district currently services approximately 239 residences in the city of Slaughters. The system purchases 40,000-gallons per day from WCWD. Slaughters Water Department currently maintains a storage tank with a 50,000-gallon storage capacity. The water district has 1 certified employees for operation and distribution. The other employees provide billing and financial oversight.

**WEBSTER COUNTY WATER DISTRICT**

PWSID: ..... 1170995  
System Type: ..... COMMUNITY  
Owner Type: ..... WATER DISTRICT  
Surface Source:  
Purchase Source:  
Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD): ..... 1.00  
Percent Daily Average Production: ..... 84.00  
Total Tank Storage Capacity (gallons): ..... 300,000.00  
Total Service Connections: ..... 1,220.00  
Number of Employees: ..... 11.00  
Treatment Operator Class: ..... 2D  
Distribution Operator Class: ..... 3A  
Customer Rate for 1,000 Gallons: ..... 6.70  
O/M costs 1997: ..... 614,547.00  
O/M costs per Service Connection: ..... 480.11  
Net Revenue 1997: ..... 79,622.00  
Total Water Produced 1997 (gallons): ..... 272,412,300.00  
Water Sold 1997 (gallons): ..... 262,676,237.00  
Unaccounted-for Water 1997 (%): ..... 2.33

The Webster County Water District currently draws water from the Green River. The district sells water to Clay Water Works, Dixon Water Works, and Providence Water Works. The system currently services 1,200 customers in the areas of Webster County not served by other systems. WCWD operates a treatment plant with a design capacity of 1,000,000-gallons per day. On an average day the system produces approximately 750,000-gallons per day. The water district has 7 certified employees for operation and distribution. The other employees provide billing and financial oversight.

The Webster County Water District has several projects it would like to undertake. The water district proposes an interconnection with the Henderson South Treatment Plant to allow for an extension that would service the Webster County Industrial Park. The district

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also proposes to complete several extension projects. To meet current as well as future needs of the county, projects have been ranked by Webster County Water District system representatives, elected officials, and the Green River Area Development District Water Supply Planning Council as being crucial to the future growth and development of the region.

**SEBREE WATER DEPARTMENT**

PWSID: ..... 1170388  
System Type: ..... COMMUNITY  
Owner Type: ..... MUNICIPAL  
Surface Source:  
Purchase Source: ..... SEBREE WATER DEPARTMENT  
Well Source:  
Sells Water to:  
Treatment Plant Capacity (MGD): ..... 0.00  
Percent Daily Average Production: ..... 0.00  
Total Tank Storage Capacity (gallons): ..... 105,000.00  
Total Service Connections: ..... 643.00  
Number of Employees: ..... 6.00  
Treatment Operator Class: ..... 2D  
Distribution Operator Class:  
Customer Rate for 1,000 Gallons: ..... Not available  
O/M costs 1997: ..... Not available  
O/M costs per Service Connection: ..... Not available  
Net Revenue 1997: ..... Not available  
Total Water Produced 1997 (gallons): ..... Not available  
Water Sold 1997 (gallons): ..... Not available  
Unaccounted-for Water 1997 (%): ..... Not available

The Sebree Water Department serves 641 customers. The systems would like to connect existing lines to increase pressure and water volume for existing customers. The water district would also like to extend lines to provide service for planned developments. To meet current as well as future needs of the county, projects have been ranked by Sebree Water Department system representatives, elected officials, and the Green River Area Development District Water Supply Planning Council as being crucial to the future growth and development of the region.

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## OTHER SYSTEMS:

### **WESTERN KENTUCKY ENERGY CORP/BIG RIVERS**

Western Kentucky Energy Corp/Big Rivers is located in Webster County. The system serves a population of 262 and has 2 service connections. The private, non-transient, non-community system has treatment capacity of 360,000 gallons per day. The water source is surface water from Green River.

## PRIVATE DOMESTIC SYSTEMS

About 2,000 people in Webster County rely on private domestic water supplies: 1,500 on wells and 500 on other sources.

In Webster County most wells that penetrate sandstone formations from depths of less than 300 feet are adequate for a domestic supply. In the highlands of the northwestern part of the county in the old Camp Breckinridge area only a few wells yield enough water for a domestic supply. In a thin highly faulted zone running east west across the county between the towns of Sebree and Tilden, yields to drilled wells are unpredictable due to the faulting.

Generally, ground water is hard to very hard and iron and salt may be present in objectionable amounts. Often ground water becomes saltier with depth.

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